reasonable and almost certain prospect of success. The length of time for which it may be necessary to use it, will depend upon the effect produced; the object being to restrain the morbid action, and to prevent the cerebral growth from rising above the proper level; thereby affording time for the membranes, which are here deficient, to form and extend themselves over the newly-organized cerebrum. It would seem that hernia cerebri has its seat not altogether in the superficial vessels of the brain, but at some depth beneath the surface; for when the morbid action which supports it is subdued, a considerable cavity occupies the seat of the tumour; this gradually fills up with a healthy organized deposite of cerebral matter. During this process, all applications, as washes, dressings, &c. to the cavity, should be avoided, and a simple plaster of basilicon applied over the opening, to protect the brain beneath from the action of the air.

ART. X. *Method of treating Fracture of the Thigh Bone.* By WILLIAM C. DANIELL, M. D. of Savannah, Georgia. [With a plate.]

IN the summer of 1819, I was called into the country to see a child of Mr. Harboch's, about seven months old, whose left thigh had been obliquely fractured near the middle of the bone, by the nurse falling with him in her arms. I applied the many-tailed bandage with four thin splints about three inches long, to confine, as well as I could, the broken ends of the bones in apposition.

Upon visiting the child the following day, I found the fractured limb about the third of an inch shorter than the other, from the lapping of the ends of the broken bone. The patient being feverish, a laxative was directed. The dressings were renewed from time to time for about a week, when the feverish symptoms had subsided, and the child become in some measure reconciled to his confinement.

The shortening of the limb still continuing, rendered it necessary to adopt some means to counteract the contraction of the muscles, and retain the ends of the broken bone in apposition. The heat of the season, as well as the age of the patient, rendering the use of the ordinary splint, (Physick's improved Desault,) and bandages objectionable, I adopted the following mode of treatment: I passed a roller of muslin around the chest of the child several times, to which I attached a bandage on each side, and extended them above the head, and fastened them to the head-board of the bed. This was done for the purpose of preventing the patient from being drawn down to the foot of the bed by the extending power. I then passed a small silk handkerchief around the ankle and foot of the fractured limb, and tied the ends together at the sole of the foot. To these united ends of the handkerchief I attached a small cord, which was passed over the foot of the bed, where it suspended a small weight which was designed for the extension of the limb.

The many-tailed bandage, with the four small splints, were continued as heretofore. In due time the broken bone united without any shortening or other deformity.

In 1824, and five years after the fracture, I examined the limb, and found it of the same length and appearance with its fellow.

Attributing my success in the above case to the manner in which I had treated the fractured limb, I became desirous of applying that mode of treatment to other cases of a similar kind. With the assistance of my friend Dr. Richardson, I have recently treated a case of oblique fracture of the thigh bonè after the following manner:—A piece of poplar plank, long enough to extend from just below the buttock to eighteen inches beyond the foot was made on the surface slightly concave to receive the thigh—the upper end was cut into a semilunar form to fit it the better to the buttock, and made six inches wide—the lower end was four inches wide. On each side of the lower end was attached a piece of board three inches high, extending up to the knee, with a gradually reduced height. A piece of board five inches high, was than fitted in the lower end, at a right angle with the lower board. In the middle of the upper edge of this piece was placed a small wooden roller, with a concave edge, which was retained by a wire axis. The lower end of this splint, which projected beyond the foot of the bed, was secured by passing a screw through the bottom piece into the foot-board of the bed. The fractured limb was then placed in this splint. The many-tailed bandage was applied over the fractured portion, (the bones having first been placed in apposition,) over which at equal distances a part and around the limb, four thin wooden splints, six inches long, were placed and secured by muslin strips. A bag of dried moss was then applied on each side of the thigh, and secured by tapes passing under the board supporting the thigh, and over the limb. A silk handkerchief was then passed around the ankle, and tied at the bottom of the foot. To this projecting portion of the handkerchief was fastened a small flaxen cord, and that passing over the roller placed in the end of the case, supported a small weight. A muslin bandage was passed around the chest to which bandages were fastened for the purpose of fixing the body to the head-board to prevent its being drawn down. This was however soon found to be superfluous, as the weight of the body was quite sufficient for the purpose of resistance to the extending power, and was consequently discontinued. The dressings were renewed once or twice a week, according to circumstances, and the bones united readily, and without any shortening of the limb.

That portion of our patient's mattrass which supported the breech was made removeable, by which arrangement the pan could be used without inconvenience.

Whenever any shortening of the fractured limb was observed, the leg was gently raised and extended to the proper distance, where it was retained by the weight attached to the cord. And here I will observe, that the cord and weight are rather designed for retaining the limb properly extended than for extending it. The latter it is known is readily performed. The importance as well as the difficulty of keeping up that extension, has been felt by every surgeon who has had a fractured thigh to treat. I flatter myself that the above mode of making and maintaining the extension, will be found an improvement. It has certainly been such in my hands.

Plate IV. figure 1. is a view of the splint case. Figure 2. exhibits the fractured limb in the splint case, with the many-tailed bandage and the small splints applied, and the extending cord and weights, but without the bags of moss.

It would be extremely difficult for any person who had not witnessed the treatment of this case, to appreciate the advantages which resulted from the mode which we adopted of keeping up the extension of the fractured limb. The patient could sit up in his bed without deranging the dressings. The only part in the use of which he was restricted, was the fractured limb. If in his movements he was thrown lower down in bed than was proper, he could draw himself up without deranging the dressings or displacing the fractured bones.

But the great and important indication that is fulfilled by this mode of treatment—and by this alone have I seen it properly fulfilled—is that there is a constant power in operation to counteract the contraction of the muscles of the fractured limb. That power is the weight suspended over the roller to the foot; and it is a power which from its constant action must necessarily exhaust the muscular contraction. Hence it never can occur where this mode of extension is properly applied, that the fractured limb will be shortened when the bones have united.

I believe that a weight of two pounds will in most cases be sufficient. My own experience however is too limited to enable me to speak with confidence. It is a matter which the discretion of the surgeon will readily adjust.

In treating a fractured thigh bone, it has been deemed of the highest importance to make the extension and counter-extension as near as possible in a line with the fractured limb and the course of the muscles to be acted upon. The merit of Dr. Physick's improvement upon Desault's splint, consists in an approximation to this. It is, however, only an approximation. In the treatment of the case detailed above, the extension and counter-extension were necessarily in a line with the broken bone and the course of the muscles to be acted upon, because the extension is made upon the foot, and the counter-extension consists in the weight of the body above the thigh. Let it not be supposed that such weight is insufficient for all the purposes of counter-extension; I believe it will upon trial be found ample. If it should not, the body of the patient may readily be retained in place by bandages fastened to the head-board as suggested.

Some surgeons are in the habit, as soon as called to a fractured limb to place the patient to harness, and at once subject him to all the pain and distress of splints, bandages, extensions and counter-extensions. Such a course is I think to be condemned not only as unnecessary severity to the patient, but also as adding in many cases additional causes of irritation and fever. I have been in the habit myself of barely at first placing the ends of the bones in such a relation to each other as would prevent irritation—always feeling satisfied, if at the end of the first week, or even early in the second, every measure had been adopted which promised to promote a favourable union of the fractured bones. By this course the patient is gradually accustomed to his confinement, and bears much better the necessary restraints of the treatment than when he is at once subjected to the whole of them.

Savannah, Georgia, 27th March, 1829.

Art. XI. *Remarkable Urinary Calculus.* By R. D. Mussey, M. D. Professor of Anatomy and Surgery in the Medical Institution at Dartmouth College, Hanover, N. H. [With a plate.]

THE calculus, of which fig. 3, Pl. IV. is a representation, I received in the autumn of 1826, from my friend Dr. SAMUEL NILES, of Post Mills, a small village in Thetford, Vermont, fifteen miles from this place. He informed me that he took it, soon after death,